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Make Way for Big Solar

India's renewable energy goals for 2019 and 2022 may seem dynamic, but can nevertheless be achieved via intensive initiatives and firm political will.

India's government has set a mammoth new goal to build a solar power capacity of 100 GW by 2022 and there is no doubt that with its huge potential, rising energy deficit and high irradiation levels India has excellent fundamentals for becoming one of the most important solar markets in the world. In November 2015, Prime Minister Narendra Modi set a target of 100 GW of solar generation capacity by 2022, a nearly 33-fold increase from the current capacity as he bets big on renewables to help meet the country's power demand and overcome the acute energy deficit.

Opportunities in the sector

Compared with other renewables, solar power possesses many advantages, which include faster and simpler deployment. Currently India receives annual sunshine of 2600 to 3200 hours which almost twice as much as that of European countries yet renewable energy accounts for just 13% or 35,000 MW of the installed capacity of 272,000 MW. According to a report by Bridge to India Globally, about 55 GW of solar capacity is expected to be added in 2015, with Asian countries likely to continue dominating the market. India is being touted to become the fifth largest market for solar energy by 2017 and this brings with it an ample number of opportunities for solar power generators and solution providers. India is likely to overtake a number of countries in terms of new capacity additions in the year given the government's serious approach towards increasing the renewable energy capacity in the country. Rooftop and small grid

connected projects present a huge opportunity as only 350 mw of rooftop capacity has been installed till date and the government plans to increase that number to 40 GW by 2022 which is a very difficult task but presents a number of opportunities for Rooftop solution providers.

Current and Potential Challenges

Recently the government has been keen on expanding the renewable energy sector; however there still remain a number of challenges that could affect the government's plan. Whereas cost and financing remain key hurdles in the way of realizing the 100 GW target, potential problems with transmission and land acquisition would also act as hurdles in the way of the mammoth target. Availability and cost is expected to be a key hurdle in the case of rooftop solar projects and the government will need to provide a greater push in order to realize the target of 40 GW for rooftop projects. Despite the announcement of the UDAY Scheme the financial health of distribution companies which are not able to afford solar power remains a key concern for the sector. One of the biggest hurdles faced by Schneider in the Indian solar industry has been the long gestation period of the projects. This is primarily due to land availability-related issues, high capital expenses and low investor confidence in investing in solar. However, the company is now positive about the timelines for project execution due to the initiatives taken by the new government. From the policy perspective, expediting work will now involve shorter timelines due to the integration of the various energy depart-

ments, including renewable energy, into one department.

Additional Incentives Needed

Phase one of the National Solar mission has been quite successful keeping in mind the incentives provided by the government for the solar sector. The continuous push brought the Indian solar market on the international radar and many international organizations are keen to invest in the country now. However we need to keep in mind the target of 100 GW by 2022 is not going to be an easy task by any means and the authorities need to provide a greater push in the form of either more incentives from the central or state governments or it can also be obligations at the state level. Furthermore, minimum guidelines for tariff need to be issued and state policies should be in sync with Central ones to promote solar power across India. States with less solar irradiation and higher demand for power should have additional incentives. While there have been differential tariffs for developers with and without accelerated depreciation, tariffs could also be differentiated by project size as larger projects benefit from economies of scale, unlike small projects. Such a step can help promote distributed energy via small projects.

The Government ought to incentivize generation of renewable energy and promote smart energy systems too. Policy reforms and other measures are required to create an enabling environment for investments in renewable energy. But it should be done judiciously to ensure a level-playing field for all stakeholders ◀